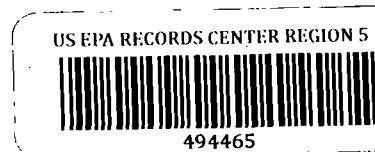


DATE: July 22, 1996

SUBJECT: Accra-Pak

FROM: Judy Kleiman, RCRA/CERCLA Liaison

TO: Sherry Estes



In reviewing the data in the Report of Investigation of Contamination for the Accra-Pak site, I have concluded that under specified conditions, RCRA Air emission standards set forth in §264.1032(a) could possibly be applicable.

RCRA Air emission standards apply to air stripping units where the groundwater contains 10 mg/l or more total organic compounds. In the Report of Investigation of Contamination the analytical results of many of the samples exceeded 10 ppm total volatile organics, although several other samples were significantly below this threshold level. The samples were taken from several borings and monitoring wells at varying depths. When the groundwater from different wells and depths is combined prior to entering the air stripping unit, RCRA will only be triggered if the total volatile organics average 10ppm or more. A rough calculation can be made by assuming equal volumes and rates of pumping of each monitoring well at each depth sampled and assuming 100% of the volatiles are emitted.

However, the data presented in this Report of Investigation of Contamination is from 1989 and 1990 and should not be used as the basis for determining if this regulation applies. Ken Theisen will be sending me the results of more recent sampling. When I receive the more recent data, I will calculate if the concentration of total organics approaches the regulatory limit and if so, at what rate of pumping would emission controls be required according to RCRA.

For the threshold concentration of 10 ppmw specified in 40 CFR §261.1032 (a), I have done a calculation of the pumping rate in liters per minute that would be necessary to exceed the RCRA regulatory limit of 1.4 kg/hr total organic emissions per hour. As shown below, at a concentration of 10 ppm total organic emissions, the regulatory limit of 1.4 kg/hr will not be exceeded until the pumping rate exceeds 2,333 liters per minute, assuming 100% emission of volatiles.

$$10 \text{ mg/l} = .01 \text{ g/l} = 1 \times 10^{-5} \text{ kg/l}$$

$$10^{-5} \text{ kg/l} \times R \text{ l/hr} = 1.4 \text{ kg/hr}$$

$$R = 1.4 \text{ kg/hr} \div 10^{-5} \text{ kg/l} = 1.4 \times 10^5 \text{ l/hr}$$

$$1.4 \times 10^5 \text{ l/hr} \div 60 \text{ min/hr} = 2,333 \text{ l/min}$$

If the concentration of total organics exceeds 10 ppm, the pumping rate which will exceed the RCRA air emission standards is proportionately less.